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IDENTIFIERS *Emergency Medical Services; Phlebotomy

ABSTRACT

This document, which is designed for use in developing a tech prep competency profile for the occupation of emergency medical technician, lists technical competencies and competency builders for 18 units pertinent to the health technologies cluster in general and 4 units specific to the occupation of emergency medical technician. The following skill areas are covered in the general units: employability; professionalism; teamwork; computer literacy; documentation; infection control and risk management; medical terminology; anatomy, physiology, and pathology; medical law and ethics; psychology of stress; psychology of human relations; first aid and medical emergencies; general administrative duties; vital signs; nutrition; basic pharmacology; examinations; and laboratory tests and diagnostic procedures. The 4 units specific to the occupation of emergency medical technician list a total of 82 competencies in the following areas: phlebotomy (collecting, transporting, and processing blood samples); first responder (roles/responsibilities; medicolegal aspects of being a first responder; performing basic first aid, assessment, evacuation, and transport procedures); emergency technology (applying Center for Disease Control guidelines, assessing and treating patients); and emergency services (understanding/using emergency medical service communication systems, performing emergency medical services, managing selected medical emergencies). (MN)

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TECH PREP

"GET SERIOUS... ABOUT SUCCESS"

CE 070 095

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Emergency Medical Technician

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Emergency Medical Technician

NOTE: Each TCP should respond to labor market demands in your area. Therefore, the following pages should be examined before being selected for use in TCP Part I (See "The TCP Process" Tab). For example, some units may not apply to your situation, nor might all the competencies within each unit be appropriate. Also, note that several units appear within each of the twelve occupations in this binder. Those "common" units should only appear once in the draft competency list for TCP Part I if you are compiling several occupations in a cluster format (See "TCP Matrix" Tab).

Units to Consider:	Page
Employability Skills	EMT-3
Professionalism	EMT-8
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Psychology of Stress	EMT-33
Psychology of Human Relations	EMT-35
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**DON'T FORGET TO INSERT
YOUR ACADEMIC COMPETENCIES HERE**

Communications Literacy, Mathematics Literacy, Science Literacy,
and Technology Literacy have been removed so that you may insert
your own academic lists here.

COMMUNICATIONS LITERACY
(e.g., Reading, Writing, Speaking, and Listening)

MATHEMATICS LITERACY
(e.g., Algebra, Geometry, Trigonometry, Calculus)

SCIENCE LITERACY
(e.g., Physical Science, Environmental Science, Agriscience,
Biology, Chemistry, Physics, Anatomy & Physiology)

TECHNOLOGY LITERACY
(i.e., the impact of technology on humans and
their home, work, and play environments)

Unit: Employability Skills

Competency: Develop a career plan

Competency Builders:

Identify current interests and aptitudes

Identify common barriers to employment

Describe strategies to overcome employment barriers

Locate resources for finding employment

Research job trends

Identify career options

Identify advantages and disadvantages of career options (in addition to other than monetary)

Identify job requirements

Investigate education/training opportunities

Evaluate personal strengths and weaknesses

Competency: Prepare for employment

Competency Builders:

Identify traditional and non-traditional employment sources
 Identify present and future employment opportunities (by geographic location)
 Research job opportunities, including non-traditional careers
 Compare salary ranges and benefit packages
 Compile occupational profile
 Identify rights and responsibilities of equal employment opportunity laws
 Design resume and cover letter
 Target resume
 Secure references
 Investigate generic and specific employment tests (e.g., civil service exam; drug screening)
 Use follow-up techniques to enhance employment potential
 Demonstrate legible written communication skills using correct grammar, spelling, punctuation, and concise wording
 Describe methods for handling illegal questions on job application forms and during interviews
 Write letter of application
 Research prospective employer and services performed
 Explain critical importance of personal appearance, hygiene, and demeanor
 Interpret job description
 Demonstrate appropriate interview question and answer techniques
 Demonstrate methods for handling difficult interview questions
 Evaluate job offers
 Write letter of acceptance
 Write letter of declination
 Demonstrate good listening skills
 Ask for the job tactfully
 Participate in extracurricular activities (e.g., student government, community projects,)

Competency: Evaluate the importance of self-esteem as an employability skill

Competency Builders:

Identify factors that affect self-esteem
 Compare effects of low self-esteem and high self-esteem
 Identify strategies to promote positive self-esteem

Competency: Demonstrate job retention skills

Competency Builders:

- Identify employer expectations regarding job performance, work habits, attitudes, personal appearance, and hygiene
- Exhibit appropriate work habits and attitude
- Demonstrate ability to set priorities
- Identify behaviors to establish successful working relationships
- Identify alternatives for dealing with harassment, bias, and discrimination based on race, color, national origin, sex, religion, handicap, or age
- Identify opportunities for advancement
- List reasons for termination
- List consequences of being absent frequently from job
- List consequences of frequently arriving late for work
- Demonstrate interpersonal relations skills (i.e., verbal and written)
- Demonstrate negotiation skills
- Demonstrate teamwork
- Follow chain-of-command
- Exhibit appropriate job dedication

Competency: Demonstrate knowledge of work ethic

Competency Builders:

- Define work ethic
- Identify factors that influence work ethic
- Differentiate law and ethics
- Describe how personal values are reflected in work ethic
- Describe how interactions in the workplace affect personal work ethic
- Describe how life changes affect personal work ethic

Competency: Exhibit appropriate work ethic

Competency Builders:

- Use time-management techniques
- Avoid personal activity during work hours
- Attend work as scheduled
- Adhere to company and/or governmental policies, procedures, rules, and regulations
- Exercise confidentiality
- Demonstrate appropriate human relations skills
- Adhere to rules of conduct
- Accept constructive criticism
- Offer constructive criticism
- Take pride in work
- Resolve conflict
- Manage stress
- Avoid sexual connotations and harassment
- Adjust to changes in the workplace
- Demonstrate punctuality
- Assume responsibility for personal decisions and actions
- Take responsibility for assignments
- Follow chain-of-command

Competency: Apply decision-making techniques

Competency Builders:

- Identify decision to be made
- Identify ownership of decision to be made
- Identify possible alternatives and their consequences
- Make decisions based on facts, legality, ethics, goals, and/or culture
- Apply time factor(s)
- Present decision to be implemented
- Evaluate decision made
- Take responsibility for decision

Competency: Apply problem-solving techniques

Competency Builders:

Identify problem
 Select appropriate problem solving tools/techniques
 Identify root problem cause(s)
 Track root problem cause(s)
 Identify possible solutions and their consequences (e.g., long term, short term, crisis)
 Use resources to explore possible solutions to problem
 Contrast advantages and disadvantages of each solution
 Identify appropriate action
 Evaluate results
 Identify post-preventive action

Competency: Exhibit characteristics for job advancement

Competency Builders:

Display positive attitude
 Demonstrate knowledge of position
 Perform quality work
 Adapt to changing situations and technology
 Demonstrate capability/responsibility for different positions
 Identify characteristics of effective leaders
 Identify opportunities for leadership in work place/community
 Demonstrate initiative to affect change in workplace
 Participate in continuing education/training program
 Responds appropriately to criticism from employer, supervisor, or other employees
 Exhibit awareness of corporate culture
 Prepare for job setbacks
 Exhibit continual growth based on performance evaluation
 Set realistic goals

Unit: Professionalism

Competency: Project professional image

Competency Builders:

- Define professionalism
- Exhibit professional appearance
- Exhibit professional manners
- Project professional attitude
- Identify individuals' vital role in organization
- Exhibit proper etiquette in professionally-related situations

Competency: Achieve individual and professional goals

Competency Builders:

- Set flexible, realistic, and measurable goals
- Identify potential barriers to achieving goals
- Identify strategies for addressing barriers to goal achievement
- Breakdown long-term goals into short-term goals
- Prioritize goals
- Commit to goals
- Adjust goals
- Obtain support for goals
- Reward goal achievement

Competency: Manage personal finances

Competency Builders:

- Explain need for personal management records
- Balance checkbook
- Identify tax obligations
- Analyze how credit affects financial security
- Compare types and methods of investments
- Compare types and methods of borrowing
- Compare types and methods of insurance
- Compare types of retirement options/plans
- Identify discriminatory vs. non-discriminatory expenditures

Competency: Support community well-being

Competency Builders:

Identify environmental, educational, and social issues
Participate in social and/or community activities

Competency: Achieve organizational goals

Competency Builders:

Evaluate personal goals in relation to organizational goals
Monitor progress by evaluating feedback
List responsibilities in relation to organization goals
Accomplish assigned tasks
Exercise responsibility in relation to organizational goals
Set appropriate personal performance standards
Communicate goals with supervisor and peers
Demonstrate knowledge of products and services
Promote organizational image and mission

Competency: Demonstrate positive relations in the workplace

Competency Builders:

Identify personality types of self and other
Identify various management styles
Support employer expectations
Support employer decisions
Accept constructive criticism
Give constructive feedback
Adapt to changes in workplace
List factors to consider before resigning
Write letter of resignation

Competency: Manage stressful situations

Competency Builders:

Accept stress as part of daily life
 Identify personal and professional factors contributing to stress
 Describe physical and emotional responses to stress
 Evaluate positive and negative effects of stress on productivity
 Identify strategies for reducing stress
 Implement strategies to manage stress
 Create strategies for developing and maintaining support systems

Competency: Analyze effects of family on work and work on family

Competency Builders:

Identify how family values, goals, and priorities are reflected in work place
 Identify responsibilities and rewards associated with paid and non-paid work
 Identify responsibilities and rewards associated with families
 Explain how family responsibilities can conflict with work
 Explain how work can conflict with family responsibilities
 Explain how work-related stress can affect families
 Explain how family-related stress can affect work
 Identify family support systems and resources
 Identify work-related support systems and resources
 Communicate with family regarding work

Competency: Apply lifelong learning skills

Competency Builders:

Define lifelong learning
 Identify factors that cause need for lifelong learning
 Analyze effects of change
 Identify reasons why goals change
 Describe importance of flexibility and adaptability
 Evaluate need for continuing education/training

Competency: Manage professional development

Competency Builders:

Identify career opportunities

Modify career plan

Participate in continuing education/training opportunities

Document continuing education/training

Read profession-related manuals, technical journals, and periodicals

Attend meetings, workshops, seminars, conferences, and demonstrations

Participate in professional organizations

Build personal/professional mentor relationship

Build personal/professional support system

Build professional network

Strengthen communication skills

Strengthen leadership skills

Strengthen management skills

Unit: Teamwork

Competency: Demonstrate knowledge of teamwork

Competency Builders:

- Define empowerment
- Differentiate work groups and teams
- Identify conditions essential to teamwork (e.g., brainstorming)
- Explain influence of culture (e.g., corporate, community) on teamwork
- Identify appropriate situations for using teams
- Define team structures (e.g., cross functional, quality improvement, task force, quality circles)
- Identify team building concepts
- Describe characteristics and dynamics of teams
- Identify characteristics of effective team leaders and members
- Identify responsibilities of a valuable team member
- Identify methods of involving each member of a team
- Explain how individuals from various backgrounds contribute to work-related situations (e.g., technical training, cultural heritage)
- Explain the purpose of facilitators
- Define consensus
- Define reward/recognition system

Competency: Demonstrate teamwork

Competency Builders:

- Identify purpose of team and intended goal (include time frames)
- Structure team around purpose
- Define responsibilities of team members
- Contribute to efficiency and success of team
- Work toward individual and team milestones
- Analyze results of team project
- Facilitate a team meeting
- Assist team member(s) with problem
- Monitor time frame
- Stress continuous improvement
- Accept failure as part of learning

Competency: Use teamwork to solve problems

Competency Builders:

Identify appropriate situations for using teams
Use problem-solving process in a team setting
Identify quality management processes/techniques
Identify quality assurance processes/techniques
Prepare presentation

Competency: Conduct team meetings

Competency Builders:

Plan agenda
Schedule meeting and location
Invite appropriate personnel
Solicit outside speakers as needed
Assign someone to take minutes
Facilitate introductions
Invite questions and comments and group participation
Focus team on agenda items
Assign appropriate action, time frame and accountability to tasks
Monitor time
Close meeting on time
Publish minutes in timely manner
Set ground rules
Avoid placing individual agendas above the group's agenda

Unit: Computer Literacy

Competency: Describe personal computer operations

Competency Builders:

Explain how data is stored in main computer memory
Explain how computer system executes program instruction
Explain computer storage capacity
Explain how data is represented
Describe data storage techniques
Identify types of memory

Competency: Operate computer hardware

Competency Builders:

Practice proper media handling techniques
Identify hardware and its use
Use hardware (e.g., mouse, modems, touch screen, printers, digitizers, scanners)
Keyboard efficiently
Demonstrate basic care of hardware
Explain need for and application of security levels/procedures

Competency: Use software

Competency Builders:

Define software types and functions
Perform functions necessary to operate software
List advantages and disadvantages of integrated and dedicated software
Operate system software
Demonstrate basic use of spreadsheets
Demonstrate word processing skills
Demonstrate basic use of databases
Demonstrate system commands
Apply security levels/procedures while handling sensitive data

Unit: Documentation

Competency: Demonstrate proficiency in technical documentation

Competency Builders:

Record data
Maintain test logs
Compile cumulative reference notebook/record

Competency: Demonstrate proficiency in technical report writing

Competency Builders:

Write out procedures
Design charts and graphs
Outline reports
Write reports
Present reports
Complete equipment failure reports
Compose technical letters and memoranda
Write formal reports
Demonstrate ability to use cross reference/technical manuals

Unit: Infection Control and Risk Management

Competency: Comply with local, state, and federal regulations

Competency Builders:

Explain state and federal governmental roles in universal precautions as outlined by the Centers for Disease control (CDC)

Comply with Occupational Safety and Health Administration (OSHA) regulations

Explain purpose of Material Safety Data Sheets (MSDS)

Comply with Environmental Protection Agency (EPA) regulations

Report communicable diseases to local health authorities

Use precautions to prevent contamination

Demonstrate use of fire and safety equipment

Correct safety hazards

Write incident reports for accidents or safety infractions

Competency: Comply with environmental safety standards, accident prevention methods, and disaster plans

Competency Builders:

- Observe environmental safety rules of facility
- Identify potential hazardous situations
- Explain universal precautions to transmission of infectious diseases (e.g., HIV/AIDS, hepatitis)
- Identify fire prevention methods, fire control, fire alarm systems, and fire reporting procedures
- Demonstrate use of fire extinguisher
- Identify facility disaster plan
- Demonstrate safety precautions for using equipment
- Demonstrate safety precautions for using liquids and poisonous substances
- Conduct safety inspection of client area
- Correct safety hazards (e.g., spills)
- Complete incident reports for accidents or safety infractions
- Identify legal implications of accidents in health care facility
- Explain potential sources of hazards, (e.g., fire, electrical, chemical, biological, radioactive)
- Follow procedures for hazardous situations (e.g., eye and face wash, shower, fire extinguishers)
- Store materials properly
- Label materials properly
- Follow manufacturer's instructions for safe operation of all equipment and instruments

Competency: Maintain personal safety and hygiene

Competency Builders:

- Use universal precautions
- Demonstrate isolation techniques
- Wash hands aseptically
- Use eye/faceshield protection
- Wear gloves
- Wear mask
- Wear uniform or professional attire
- Apply principles of aseptic techniques and sterility
- Practice proper hygiene
- Immunize self against communicable diseases
- Complete incident reports as required
- Demonstrate proper body mechanics
- Demonstrate safe and effective sterilizing methods for instruments and equipment
- Demonstrate safe and effective use of safety equipment
- Identify at-risk behaviors which promote the spread of HIV/AIDS and/or hepatitis
- Differentiate fact from fallacy regarding the transmission of HIV/AIDS and hepatitis
- Identify principles of ergonomics
- Identify common causes of back injuries
- Demonstrate proper body mechanics involved in lifting, moving, transferring, ambulating, and positioning patient

Competency: Maintain infection control of work area

Competency Builders:

Identify modes of transmission of infection
 Identify methods for preventing infection transmission
 Differentiate between bacteriostatic and bacteriocidal
 Identify disinfection techniques
 Define "nosocomial infection"
 Identify terms related to cleaning and disinfecting
 Outline measures to be taken to clean and disinfect
 Outline flow of dirty equipment and materials
 Contain used linens
 Isolate contaminated linens
 Clean work areas
 Disinfect work areas

Competency: Apply aseptic and sterilizing principles

Competency Builders:

Read and follow manufacturer's instructions for safe operation of all equipment and instruments
 Maintain infection control
 Prescrub instruments
 Disinfect instruments
 Sterilize instruments
 Operate sterilizing equipment
 Store sterilized equipment and supplies
 Maintain quality-control log
 Define asepsis
 Identify methods for sterilizing and disinfecting reusable equipment
 Define spore strip and how it is used to guarantee sterilization
 Explain why dating of sterilized equipment is necessary
 Explain why proper documentation of disinfection and sterilization procedures is necessary

Competency: Dispose of waste materials in compliance with government regulations

Competency Builders:

- Practice safe, sanitary, and sterile procedures
- Dispose of noninfectious waste
- Dispose of infectious waste
- Dispose of hazardous waste
- Dispose of controlled substances
- Dispose of needles and sharp instruments properly

Competency: Demonstrate isolation techniques

Competency Builders:

- Describe different types of isolation
- Demonstrate mask, gown, and gloving techniques
- Demonstrate use of protective eyewear/faceshield
- Demonstrate double bagging technique
- Demonstrate procedures for disposal of soiled materials
- Provide care for patient using isolation technique
- Collect specimen from isolation patient
- Disinfect isolation unit

Competency: Maintain patient safety

Competency Builders:

- Apply restraints (e.g., soft, vest)
- Monitor use of restraints
- Utilize gait belt
- Assist patient to walk with assistive ambulation devices
- Demonstrate safe usage of patient transport equipment
- Demonstrate safe handling of patient medical equipment (e.g., IV's, catheters, oxygen tubing)
- Identify proper bed height
- Position patient maintaining proper body alignment, supporting body parts
- Demonstrate patient transfer techniques
- Identify safety needs of medicated patient
- Demonstrate usage of side rails
- Identify placement of patient call device
- Orient patient to surroundings

Competency: Explain sexually transmitted diseases (STDs)

Competency Builders:

- Differentiate fact from fallacy regarding the transmission and treatment of STDs
- Identify community resources and services available to victims of STDs
- Identify at-risk behaviors which promote the spread of AIDS
- Describe infection control techniques designed to prevent the spread of STDs

Competency: Practice quality control

Competency Builders:

- Identify quality control parameters
- Maintain quality control parameters
- Prepare quality control charts and graphs
- Calculate means, standard deviations, and coefficients of variation
- Identify trends, shifts, and "out of control" situations
- Address "out of control" situations
- Identify bias in control systems
- Maintain quality control procedure manual (including laboratory policies; laboratory organization and personnel definition; procedure for collection, labeling, and transportation of specimens; work sheets; log books, and reporting of results; instructions for processing specimens; laboratory safety related to biological, chemical, mechanical, and electrical hazards and the disposal of contaminated materials; monitoring quality control of equipment, media, reagents, and stains)

Competency: Conduct proficiency testing

Competency Builders:

- Explain rules and regulations regarding proficiency testing (i.e., acceptable parameters for constituents, laboratory areas address by proficiency testing, and rules of inspecting agencies and Medicare-approved systems)
- Explain the construction of blind and double-blind studies
- Compare peer results
- List sources of proficiency testing materials
- Process proficiency testing materials

Unit: Medical Terminology

Competency: Use common medical symbols, abbreviations, and acronyms

Competency Builders:

Identify commonly used symbols (e.g., O₂)

Write out full names of commonly used acronyms (e.g., IV, PACU, IPPB, CPAP)

Write out full names of commonly used abbreviations (e.g., bx= biopsy)

Spell medical terms correctly

Demonstrate use of Roman numeral system

Competency: Demonstrate knowledge of medical terminology

Competency Builders:

Define, spell, and pronounce basic Greek and Latin prefixes and suffixes

Spell basic Greek and Latin prefixes and suffixes

Pronounce basic Greek and Latin prefixes and suffixes

Identify principal terms relating to the body as a whole (e.g., ambulation, hypothermia)

Define terms related to the integumentary system

Define terms related to the skeletal system

Define terms related to the muscular system

Define terms related to the nervous system

Define terms related to the circulatory/cardiovascular system

Define terms related to the lymphatic system

Define terms related to the respiratory system

Define terms related to the digestive system

Define terms related to the endocrine system

Define terms related to the urinary system

Define terms related to the reproductive system

Define terms related to the senses

Define terms related to immunology

Define terms related to pathology

Unit: Anatomy, Physiology, and Pathology

Competency: Demonstrate general knowledge of basic chemistry

Competency Builders:

Identify elements on periodic table
 Design simple chemical formulas
 Contrast atoms versus molecules
 Define synthesis, decomposition, and exchange reactions
 Define diffusion, filtration, and osmosis
 Differentiate between acids and bases

Competency: Demonstrate general knowledge of the human body

Competency Builders:

Define anatomy and physiology and explain their relationship
 Describe the anatomical position
 Identify body directions, planes, and cavities
 Name the major organ systems and their functions
 Classify major organs by the organ system they are within
 Define cell composition, shape and size
 Identify cell regions and organelles and explain their function
 Identify basic life processes of cell division and transportation
 Identify the four major tissue types, their function and subtypes
 Define neoplasm and distinguish between benign and malignant
 Describe effect of aging across the lifespan

Competency: Demonstrate knowledge of the integumentary system

Competency Builders:

List the functions of the integumentary system
 Describe skin's response to touch/pressure, temperature, and pain
 Name the layers of the skin
 Identify structures associated with the skin, hair, hair follicle, sebaceous gland, and sudoriferous gland
 Name the major body membranes
 Identify common skin disorders
 Describe common types of skin lesions

Competency: Demonstrate knowledge of the skeletal system

Competency Builders:

List functions of the skeletal system
 Name methods of classifying bone
 Identify bone types within each classification method
 Explain the structure and function of a long bone
 Describe the composition of bone
 Define function and dysfunction of bone marrow
 Explain the process of bone formation and growth
 Identify major bones of the human skeleton
 Name types of bone markings and their associated terms
 Define joint and describe the typical structure of a joint
 Name categories of joints
 Compare the amount of movement allowed by each type of joint
 Define types of motion
 Identify various types of fractures
 Identify the various methods of correction for fractures
 Identify common disorders and injuries of bones and joints

Competency: Demonstrate knowledge of the muscular system

Competency Builders:

- Identify types of muscle tissue
- Describe muscle contraction
- Define the parts of a muscle and explain major muscle types
- Define muscle tone, isotonic and isometric contractions
- Name types of movements produced by skeletal muscle contractions
- Identify the major muscles of the human body
- Identify common abnormal conditions of the muscles
- Identify origin, insertion and function of muscles
- Describe common disorders and injuries of the muscles

Competency: Demonstrate knowledge of the nervous system

Competency Builders:

- Describe the general functions of the nervous system
- Identify the main parts of the nervous system
- Name principle cell types that compose the nervous system
- Describe the neuron, its function, and the existing types of neurons
- Describe the neuralgia, its function, and the existing types of neuralgia
- Define ganglia, nuclei, tracts and nerves, noting their differences
- Describe the events of the nerve impulse
- Identify parts of the brain
- Describe structures and functions of the various parts of the brain and spinal cord
- Explain function of the autonomic nervous system and its divisions
- Describe common disorders and injuries of the nervous system

**Competency: Demonstrate knowledge of the circulatory/
cardiovascular system**

Competency Builders:

Identify the structures and functions of the heart
Trace the pathway of blood through the heart
Describe routes of blood circulation
Define blood pressure, pulse, systole, diastole and cardiac cycle
Describe the pathway of impulses through the heart's conduction system
List factors that influence heart rate
Identify the structure and function of the blood vessels - arteries, veins and capillaries
Identify major blood vessels
Identify structures involved in fetal circulation
Identify several pulse points
Identify major components of blood
Identify the blood types
Describe the blood clotting process
Describe common disorders of the circulatory/cardiovascular system

Competency: Demonstrate knowledge of the lymphatic system

Competency Builders:

Name the structures composing the lymphatic system
Identify the functions of the lymphatic system
Explain the relationship between the lymphatic system and the cardiovascular system
Explain the immune response in relationship to the lymphocytes
Define antigens
Define antibodies and ways in which antibodies act against antigens
Differentiate between active and passive immunity
Describe common disorders of the lymphatic system

Competency: Demonstrate knowledge of the respiratory system

Competency Builders:

Identify major respiratory system organs and structures describing the function of each

Describe the function of major respiratory system organs and structures

Define cellular respiration, external respiration, internal respiration, ventilation, expiration and inspiration

Describe the process of gas exchange in the lungs and the tissues

Explain role of the respiratory muscles in breathing

Identify brain areas involved in the control of respiration

Explain respiratory volumes and capacities

Describe a common disorders and injuries of the respiratory system

Competency: Demonstrate knowledge of the digestive system

Competency Builders:

Identify the structures and functions of the digestive system

Describe the mechanisms of mastication, swallowing, vomiting and defecation

Define anabolism and catabolism

Define basal metabolic rate and total metabolic rate

Describe common disorders of the digestive system

Competency: Demonstrate knowledge of the endocrine system

Competency Builders:

Differentiate between endocrine and exocrine glands

Identify major endocrine glands and hormones produced by each

Explain response of body systems to hormones

Describe common endocrine gland disorders

Competency: Demonstrate knowledge of the urinary system

Competency Builders:

- Identify components of the urinary system
- Explain the functioning of the urinary system
- Identify nitrogenous waste found in the urine
- Explain how water and electrolyte balance is maintained by the body
- Define micturition
- Explain how micturition occurs
- Describe common disorders of the urinary system

Competency: Demonstrate knowledge of the reproductive system

Competency Builders:

- Explain the general function of the reproductive system
- Identify major organs of the reproductive system
- Describe the phases of the menstrual cycle
- Explain the process of meiosis, spermatogenesis, and oogenesis
- Identify stages of embryonic development
- Explain the physiology of childbirth
- Describe common disorders of the reproductive system

Competency: Demonstrate knowledge of the senses

Competency Builders:

- Identify major structures and functions of vision, hearing, balance, smell, taste, and touch
- Define refraction, accommodation, real image, and emmetropic
- Describe common disorders and injuries of the senses

Competency: Demonstrate knowledge of immunology

Competency Builders:

Explain the immune response in relationship to the lymphocytes

Define antigens and antibodies

Explain the differences among the five major classes of antibodies

Describe the relationship between antigens and antibodies

Differentiate between active and passive immunity

Describe common immunodeficiencies, allergies, and autoimmune disorders

Unit: Medical Law and Ethics

Competency: Comply with medical law and ethics

Competency Builders:

Differentiate between legal and ethical behavior

Explain terms, principles, and characteristics of legal and ethical behavior

Explain state and federal rules and regulations governing the practice of the profession

Explain legal ramifications of breaching rules and regulations

Explain effects of unethical and/or unlawful behavior of health care professionals

Practice within the role and scope of the profession as defined by law, job description, and facility/arena of practice

Competency: Exhibit ethical behavior

Competency Builders:

Describe ethical dilemma in health care (e.g., death and dying, medical ethics committees)

Explain health care professional's responsibility in situations of patient abuse and neglect

Explain health care professional's responsibility in situations of coworker chemical addition

Identify personal, societal, and global implications of substance use and abuse

Explain effects of unethical behavior of health care professionals

Competency: Describe legal ramifications of misconduct

Competency Builders:

Explain terms, principles, and characteristics of legal and ethical behavior

Explain legal and ethical ramifications of breaching patient confidentiality

Competency: Practice discretion regarding patient information

Competency Builders:

- Identify components of Patient Bill of Rights
- Communicate patient's rights
- Identify patient's rights and responsibilities
- Describe reasons for sharing patient information
- Identify appropriate persons to whom information can be released
- Describe methods of maintaining confidentiality
- Explain truth-in-ending law
- Explain anatomical gift act
- Explain advance directives
- Explain living will
- Explain informed consent
- Identify reasons for termination of patient services
- Explain consequences of noncompliance with physician's recommendations
- Explain remuneration
- Describe impact of communicable diseases
- Describe the importance of proper sample identification

Competency: Practice personal professional protocol with medical community

Competency Builders:

- Explain process of certification/licensure of health professionals
- Comply with tax requirements
- Maintain integrity of personal files
- Explain the statute of limitation
- Identify ownership of medical records
- Maintain procedures for legal access to patient and/or records
- Investigate professional liability coverage options

Unit: Psychology of Stress

Competency: Analyze factors that influence a patient's response to stress

Competency Builders:

Explain stress as a concept

Differentiate between stress and stressors

Explain how an individual's perception of stress influences his response to stressors

Explain how internal and external mitigating factors influence one's response to stress

Identify coping mechanisms used to decrease stress

Identify biological adaptive responses to stress

Competency: Analyze physiological response to stress

Competency Builders:

Describe the stress response on the autonomic nervous system, endocrine system, cardiovascular system, renal system, respiratory system, and hemopoietic system

Explain how the internal and external non-specific mitigating factors relate to the physiological stress response

Differentiate between immune systems response to stressors in children and adults

Explain how the concept of stress relates to activation of the disease process

Competency: Analyze psychological response to stress

Competency Builders:

- Identify psychological stressors
- Describe the relationship between personality types and the stress response
- Summarize the primary and secondary appraisal of a stressor
- Differentiate between cognitive and behavioral coping mechanisms
- Differentiate among problem-focused, emotion-focused, and appraisal-focused coping in relation to stressors
- Identify a patient's ability to cope with stress based on individual and stressor characteristics
- Identify types of coping strategies
- Identify selected defense mechanisms
- Summarize ineffective coping behaviors
- Explain the psychobiologic response of anxiety as it relates to stress
- Describe the disequilibrium associated with response to stressors

Competency: Provide care for a patient with an ineffective coping response

Competency Builders:

- Assess psychological responses to stress in a patient
- Promote exploration of feelings when providing nursing care
- Describe strategies to assist in stress reduction
- Implement strategies to assist in stress reduction
- Evaluate selected nursing interventions and suggest alternative measures

Unit: Psychology of Human Relations

Competency: Explain human growth and development

Competency Builders:

Describe characteristics of growth and development from conception to birth

Describe characteristics of growth and development from birth through preschool

Describe characteristics of growth and development from school age through adolescence

Describe characteristics of growth and development of the adult through the life span

Competency: Demonstrate appropriate communication techniques

Competency Builders:

Identify components of provider-client relationship

Identify ways to cope with stress

Identify uniqueness of individual (e.g., cultural, generational, social, ethnic)

Treat clients with respect and dignity

Identify assertive and aggressive responses

Differentiate between acceptable and unacceptable touching

Identify barriers to communication

Competency: Establish rapport

Competency Builders:

- Describe proper manner for greeting a patient
- Adapt communication to individual's ability to understand (e.g., functioning level, emotional state, and educational level)
- Respond to verbal and nonverbal communication
- Serve as liaison between physician, patient, and others
- Solicit patient's understanding of communication
- Translate medical terms into language patient can understand
- Interpret patient's reaction to illness and disability
- Describe individual, cultural and socioeconomic differences in people
- Identify methods in which to communicate with patients or responsible party with sensory disorders
- Support patient/responsible party during the grief process
- Orient patient to policies, facilities, and staff
- Respond to patient/responsible party in a therapeutic manner
- Identify patient personality types
- Treat patient with empathy and impartiality
- Support patient's right to make decisions regarding care
- Encourage ventilation of patient/responsible party's feelings

Competency: Follow established procedures for communication and documentation

Competency Builders:

- Transmit reports of patient status
- Demonstrate basic computer skills
- Complete interdepartmental requisitions (e.g., therapies, procedures, tests)
- Complete an incident report
- Monitor accuracy in all communications
- Initiate medical records according to institutional policies
- Maintain medical records according to institutional policies
- Identify need for documenting and reporting
- Interpret patient-related documents participate in team conferences
- Report change in patient status
- Clarify physicians orders
- Differentiate charting methods
- Respond to request for service
- Respond to request from patient's funding source
- Notify patient or responsible party of changes required in treatment plan
- Write instructions for use of patient equipment (e.g., orthosis, prosthesis)
- Write instructions for a home therapy program
- Witness a consent form
- Create an informational display

Competency: Document patient progress

Competency Builders:

- Record current treatment rendered and patient response
- Include parameters in notes (e.g., subjective, objective, assessment, plan)
- Use correct grammar, spelling, and approved abbreviations
- Secure appropriate signatures
- Write legibly
- Use appropriate resources

Unit: First Aid and Medical Emergencies

Competency: Use emergency procedures

Competency Builders:

- Identify emergency procedures
- Contact local emergency assistance
- Demonstrate first responder procedures
- Acquire first aid certification
- Acquire CPR certification

Competency: Perform first aid

Competency Builders:

- Assist with first aid for wounds or fractures
- Administer first aid to control bleeding
- Administer first aid for shock
- Administer first aid for burn patient
- Assist with first aid for poisoned patient
- Assist with choking patient
- Assist with patient having seizure
- Assist with syncopal patient

**Competency: Maintain cardiopulmonary resuscitation (CPR)
according to accrediting agency standards**

Competency Builders:

- Update CPR certification
- Administer CPR to infants and children
- Administer CPR to adults
- Administer care for obstructed airways for infants, children, and adults

Competency: Respond to medical emergencies

Competency Builders:

Identify patient

Perform head to toe patient assessment

Assess patient needs

Describe signs and symptoms of emergency situations

Identify basic emergency equipment

Take appropriate action

Unit: General Administrative Duties

Competency: Perform scheduling and recordkeeping duties

Competency Builders:

- Schedule patient appointments
- Coordinate activities with other departments
- Coordinate activities with community agencies
- Schedule space and equipment for therapy
- Maintain daily charges for equipment/treatment
- Comply with reimbursement requirements
- Maintain patient files/charts
- Maintain patient attendance records
- Schedule routine equipment maintenance and repair

Competency: Perform other departmental duties

Competency Builders:

- Assist in dealing with vendors
- Assist in maintenance of departmental budget
- Assist in writing/revising job description
- Assist in writing/revising forms (e.g., home programs, documentation forms)
- Maintain departmental cleanliness
- Maintain inventory/supplies

Competency: Manage reception area

Competency Builders:

- Prepare reception area
- Greet visitors and patients
- Advise patient of office hours
- Manage children accompanying patient
- Identify ways to communicate with patients with sensory disorders
- Screen non-patient visitors
- Explain delays to patients physician's fees

Competency: Demonstrate telephone handling techniques

Competency Builders:

Place calls

Record telephone messages (e.g., date, time, initial calls)

Screen calls

Transfer calls

Obtain information for return calls

Handle emergency calls

Make arrangements for patient's admission to hospital

Make patient referrals

Phone prescriptions to pharmacy

Competency: Maintain appointment schedules

Competency Builders:

Write appointments legibly

Prepare appointment calendar

Record appointments

Prepare appointment cards

Maintain recall system

Confirm appointments

Schedule outpatient diagnostic tests

Make referral appointments for patients

Competency: Maintain medical records and laboratory reports

Competency Builders:

- Obtain patient information
- Prepare folder
- Prepare charge documentation
- Explain importance of records management
- File information alphabetically or numerically according to office protocol
- Retrieve patient record from file
- Prepare cross-reference file
- Process incoming medical reports
- Purge records
- Prepare reports concerning patient care, condition, census, accidents, and incidents
- Maintain current documentation of patient status and care
- Complete immunization records
- Compile patient laboratory reports
- Process completed laboratory reports
- Document results from reference laboratories
- Verify tests ordered and test received

Competency: Prepare office communications

Competency Builders:

- Compose business correspondence
- Edit business correspondence
- Transcribe letters from dictating machine
- Keyboard business correspondence
- Print documents
- Proofread for errors in correspondence
- Complete appropriate consent forms
- Address envelopes
- Process incoming mail
- Maintain files for correspondence
- Classify outgoing mail
- Label outgoing mail

Competency: Use office equipment

Competency Builders:

- Operate calculator
- Operate checkwriter
- Operate computer
- Operate copy machine
- Operate fax machine
- Operate multi-line telephone system

Competency: Demonstrate knowledge of different payment systems

Competency Builders:

- Identify required procedures for private carriers
- Identify required procedures for non-insured patients
- Identify required procedures for health maintenance organization (HMO)
- Identify required procedures for preferred provider organization (PPO)
- Identify required procedures for independent practitioner association (IPA)
- Identify required procedures for U.S. government employees (CHAMPUS)
- Identify required procedures for Aid to Dependent Children (ADC)
- Identify required procedures for general assistance (GA)
- Identify required procedures for Medicare
- Identify required procedures for Medicaid
- Identify required procedures for worker's compensation

Competency: Perform diagnostic coding

Competency Builders:

- Stay current with diagnostic coding changes
- Complete forms for international classification of diseases (ICD-9 CM)
- Complete forms for current procedural terminology (CPT)
- Complete forms for health care procedural code (HCPC)
- Complete forms for diagnostic related groups (DRG)
- Complete forms for J-codes

Competency: Process insurance claims/forms

Competency Builders:

- Define primary and secondary carriers
- Define third party administrators
- Explain payment and rejection procedures (e.g., co-pays, deductibles, errors)
- Process quick-claim forms
- Use procedure codes
- Log and track insurance claims/forms

Competency: Perform financial functions

Competency Builders:

- Apply basic bookkeeping fundamentals
- Interpret and explain fees
- Arrange financial agreements
- Complete ledger
- Prepare account summaries
- Collect fees
- Issue receipts
- Maintain petty cash account
- Prepare bank deposits
- Verify invoices
- Collect delinquent bills
- Collect and post payments
- Process credit card transactions
- Prepare checks for signature
- Prepare payroll
- Reconcile bank statements, cash, and/or receipts
- Complete Worker's Compensation forms and Medicare/Medicaid forms
- Prepare schedule of accounts receivable
- Prepare schedule of accounts payable
- Maintain accounts receivable
- Maintain accounts payable

Unit: Vital Signs

Competency: Interview patient

Competency Builders:

Complete patient information sheets
Record medical history (e.g., allergies, current medications)
Assess bio-psycho-social condition
Validate data with patient or patient's family member(s)

Competency: Measure temperature

Competency Builders:

Follow safety and aseptic precautions for taking temperature
Identify normal range and average temperature of oral, axillary, tympanic, and rectal methods of measuring body temperature
Identify factors that may affect temperature
Select route for measuring temperature
Demonstrate use of different types of thermometers
Record temperature measurements
Report abnormal temperature measurements
Maintain thermometer(s)

Competency: Measure pulse

Competency Builders:

Identify criteria for selecting pulse site (e.g., femoral, apical, radial)
Identify normal pulse range for different age groups
Identify factors that may affect pulse
Identify variations from normal pulse that should be reported
Record pulse

Competency: Measure respiration

Competency Builders:

Assess lung sounds
Measure rate, depth, and rhythm of respiration
Identify normal respiratory rate for different age groups
Report signs of compromised respiration
Identify factors that may affect respiration
Record respiration

Competency: Measure blood pressure

Competency Builders:

Identify myths and misconceptions related to blood pressure and hypertension
Identify etiology of hypertension
Identify consequences of untreated hypertension
Identify normal range of blood pressure for different age groups
Record blood pressure
Identify factors that affect blood pressure
Select appropriate cuff size
Describe the effect of inappropriate cuff size on accurate blood pressure reading
Identify variations from normal blood pressure that should be reported
Demonstrate use of aneroid sphygmomanometer
Demonstrate use of mercurial sphygmomanometer
Demonstrate palpated blood pressure

Competency: Obtain physical measurements

Competency Builders:

Measure adult height
Measure adult weight
Measure adult chest and waist expansion
Measure infant height
Measure infant weight
Measure infant head and chest circumference
Measure auditory status (e.g., tympanogram)
Measure visual status (e.g., eye chart)
Identify color blindness
Record all results

Unit: Nutrition

Competency: Identify fundamentals of nutrition

Competency Builders:

Identify nutrients and food groups
 Explain role of nutrients to body functions
 Explain regional, cultural, and religious food patterns
 List factors which must be considered when purchasing food
 Identify component of a balanced diet across the life span (e.g., USDA Food pyramid)
 List factors which must be considered when storing food
 Identify methods of food preparation
 Instruct patient in sound nutrition principles

Competency: Identify nutritional needs related to special conditions and/or diseases

Competency Builders:

Describe common diets related to health alterations (e.g., pureed, mechanical-soft)
 Describe special diets
 Identify community resources
 Identify risks of non-compliance with dietary restrictions
 Educate patient regarding dietary hazards (e.g., caffeine, fats)

Competency: Draw correlation between diet and exercise

Competency Builders:

Identify methods of exercise
 Explain effect of exercise and food on energy level
 Write an exercise plan
 Identify weight-related issues

Competency: Identify facets of alternative nutrition

Competency Builders:

Identify indications and effects of tube feedings

Identify indications and effects of intravenous fluids

Identify indications and effects of lipids

Identify indications and effects of hyperal

Unit: Basic Pharmacology

Competency: Maintain supply of medications

Competency Builders:

Check inventory stock
Contact supplier
Rotate stock
Process narcotic forms (i.e., Drug Enforcement Agency (DEA) license)
Store medications properly
Prepare expired medications for disposal
Dispose of medications properly (i.e., comply with government regulations)

Competency: Calculate dosage according to physician's orders

Competency Builders:

Verify accuracy of medical orders
Use Physician's Desk Reference (PDR)
Transcribe medication order
Calculate oral dosage
Calculate parenteral dosage
Calculate sublingual dosage
Calculate pediatric dosage
Calculate intravenous dosage and rate of flow

Competency: Instruct patients on use of medications

Competency Builders:

Provide verbal and/or written instructions for medication use
Explain use of medications (e.g., identify side effects, adverse effects, interactions)
Maintain standing orders according to physician's protocol (e.g., prescription refills)

Competency: Dispense medications according to medical orders

Competency Builders:

- Identify patient
- Verify patient allergies
- Use reference materials
- Verify accuracy of medical orders
- Calculate dosages
- Prepare oral medication
- Identify correct anatomical sites
- Prepare intramuscular, intradermal, and subcutaneous injectable medications
- Prepare and administer sublingual medications
- Prepare transdermal medications
- Prepare inhalant medications
- Prepare instillation medications
- Prepare and administer topical medications
- Prepare and administer rectal medications
- Prepare and administer vaginal medications
- Assist with administration of local anesthesia
- Administer medications
- Document medication administration
- Document patient response to medications

Competency: Evaluate response to medication

Competency Builders:

- Identify possible adverse reactions to medication
- Assess patient reaction to medication
- Report untoward reactions to appropriate sources
- Document patient response to medication

Unit: Examinations

Competency: Demonstrate general knowledge of diagnostic studies

Competency Builders:

Describe the various methods of examining patients
 Explain the functions of commonly used examining instruments
 Describe the sequence of steps in a general physical examination
 Identify various patient positions used in examinations
 Identify common diagnostic blood tests performed in the medical laboratory
 Differentiate between cultures and smears used in bacteriology
 Identify sources from which cultures and smears may be obtained
 Describe common radiological and sonographic studies and imaging techniques
 Identify the purposes of nuclear medicine
 Identify common cardiopulmonary diagnostic examinations
 Identify common neurological diagnostic examinations

Competency: Demonstrate principles of body mechanics and ergonomics

Competency Builders:

Identify principles of ergonomics
 Identify common causes of back injuries
 Demonstrate proper body mechanics involved in lifting, moving, transferring, ambulating, and positioning patient
 Assist patient in and out of wheelchair
 Assist patient with crutches
 Assist patient with cane
 Assist patient with walker
 Assist patient with standing
 Assist patient with cast or splints
 Assist patient to bathroom
 Position patient using supportive devices (e.g., pillows, footboards)
 Perform ROM (i.e., range of motion)

Competency: Assist with general examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Change paper on examination table
- Provide for patient privacy
- Prepare patient for examination
- Communicate with patient with special needs (e.g., hearing or vision disorder)
- Inventory personal property
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Clean examination room after procedure

Competency: Assist with eye, ear, nose, and throat examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Assist with and chart eye irrigation
- Assist with and chart ear irrigation
- Assist with and chart tympanometry
- Assist with and chart laryngoscopy
- Describe taste bud reactions
- Conduct visual screening
- Conduct auditory screening
- Administer eye, ear, and nose medications
- Clean examination room after procedure

Competency: Assist with obstetric and gynecological examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Obtain cytology history
- Assist with Pap smear
- Instruct patient in self breast examination
- Clean examination room after procedure

Competency: Assist with pediatric examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Record measurements on growth chart
- Record immunizations
- Apply restraints when needed (e.g., papoose board)
- Clean examination room after procedure

Competency: Assist with proctology and gastrology examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Assist with proctoscopy
- Clean examination room after procedure

Competency: Assist with orthopedic examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment (e.g., soaks)
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Assist with casting and splinting procedures
- Demonstrate use of ambulatory aids
- Assist patient in wheelchair transfer to and from examination table
- Clean examination room after procedure

Competency: Assist with neurological examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Clean examination room after procedure

Competency: Assist with geriatric examination

Competency Builders:

- Prepare examination room(s)
- Set-up trays and equipment
- Prepare patient for examination
- Assist physician with examination
- Carry out physician's orders
- Follow up patient needs
- Ensure procedure documentation and labeling
- Clean examination room after procedure

Unit: Laboratory Tests and Diagnostic Procedures

Competency: Perform drug screen testing

Competency Builders:

Demonstrate safe use of equipment
Record results accurately
Collect and label specimen accurately

Competency: Perform tuberculosis testing

Competency Builders:

Administer tine test
Administer Mantoux test
Interpret test results

Competency: Perform specimen collection and handling

Competency Builders:

Collect eye, nose, and throat specimens for culture
Collect urine (e.g., clean-catch, sterile, 24-hour, midstream, catheter)
Collect stool specimen
Demonstrate proper techniques to perform venipuncture and capillary puncture
Collect wound specimens
Collect sputum specimens
Collect capillary blood
Collect venous blood using syringe
Collect venous blood using vacutainer
Label all collected specimens properly
Package specimen for mailing/shipping
Transport specimen
Differentiate among timed specimens, fasting specimens, and state specimens
Describe general criteria for suitability of a specimen for analysis
Describe conditions that must be met if specimens and tests are to be used as legal evidence

Competency: Assist with allergy testing

Competency Builders:

Prepare tray
Perform scratch test (e.g., ID test)
Perform patch test
Perform intradermal test

Competency: Perform manual and automated tests of complete blood count

Competency Builders:

Perform hematocrit (Hct)
Perform hemoglobin determination (hgB)
Perform red blood cell counts (RBC)
Perform white blood cell counts (WBC)
Perform white blood cell differential (diff)
Perform erythrocyte sedimentation rate (ESR)
Perform prothrombin time (PT)

Competency: Perform serological tests

Competency Builders:

Prepare serum
Perform serum blood chemistries
Separate plasma or serum from cells
Perform ABO and Rh typing
Perform monospot test
Perform serum pregnancy test (HCG)
Package record data and set-up delivery of blood samples

Competency: Perform electrocardiograms

Competency Builders:

Mount a 12-lead electrocardiogram
Run and record a standard
Set-up Holtor monitors
Clean electrocardiogram equipment

Competency: Perform diagnostic skills

Competency Builders:

Perform neurological checks
Perform urinary tests (e.g., sugar and acetone, protein, ketones, specific gravity)
Assist with laboratory tests (e.g., blood gases, lumbar puncture)
Measure blood glucose level
Maintain monitoring equipment (e.g., cardiac monitor, pulse oximeter)
Measure central venous pressure (CVP)
Perform electrocardiogram (ECG)
Perform visual screening
Perform auditory screening

Competency: Demonstrate laboratory procedures in clinical chemistry

Competency Builders:

List requirements for patient preparation
Describe special collection techniques (e.g., 24 hr. urine G)
Handle specimen properly
Correlate test procedure to methodology
Identify normal versus panic values
Identify clinical significant

**Competency: Demonstrate laboratory procedures in
hematology/coagulation**

Competency Builders:

List requirements for patient preparation
Handle specimen properly
Correlate test procedure to methodology
Identify normal versus panic values
Identify clinical significance of test value

**Competency: Demonstrate laboratory procedures in
immunohematology**

Competency Builders:

List requirements for patient preparation
Handle specimen properly
Correlate test procedure to methodology
Identify normal versus panic values
Identify clinical significance of test value

**Competency: Demonstrate laboratory procedures in
microbiology**

Competency Builders:

List requirements for patient preparation
Handle specimen properly
Correlate test procedure to methodology
Identify normal versus panic values
Identify clinical significance of test value

Competency: Demonstrate laboratory procedures in immunology

Competency Builders:

- List requirements for patient preparation
- Handle specimen properly
- Correlate test procedure to methodology
- Identify normal versus panic values
- Identify clinical significance of test value

Competency: Demonstrate laboratory procedures in urinalysis

Competency Builders:

- List requirements for patient preparation
- Handle specimen properly
- Correlate test procedure to methodology
- Identify normal versus panic values
- Identify clinical significance of test value

Competency: Demonstrate safe phlebotomy techniques

Competency Builders:

- Assemble equipment (e.g., vacutainers, bottles)
- Differentiate venous versus arterial collection procedures (e.g., Allen test)
- Prepare patient for procedure (e.g., establish rapport)
- Care for phlebotomy site
- Collect capillary blood
- Collect venous blood with syringe
- Collect venous blood with vacutainer
- Collect blood culture
- Handle specimen(s) properly

Competency: Administer laboratory management skills

Competency Builders:

Describe different management styles

Explain personnel evaluation process

Apply accounting principles

Analyze statistical data

Schedule personnel equitably

Negotiate contracts

Identify regulatory agencies (e.g., OSHA, CAP, JCAHO, AABB)

Explain Clinical Laboratory Improvement Amendment

Unit: Phlebotomy

Competency: Demonstrate knowledge of health care institutions and departments in which a phlebotomist functions

Competency Builders:

Identify the health care providers in hospitals and clinics

Describe the organizational structure of the clinical laboratory department

Discuss the roles of clinical laboratory personnel

Discuss the qualifications for clinical laboratory personnel

List the types of laboratory procedures run in the various sections of the clinical laboratory department

Describe the role of the clinical laboratory in assessing body functions

Competency: Identify the phlebotomist's role as a member of a health care team

Competency Builders:

Describe the various facilities and departments in which the phlebotomist interacts

Describe the major functions of the various facilities and departments in which the phlebotomist interacts

Competency: Describe collection equipment, reagents, and interfering factors in blood collection

Competency Builders:

Describe the types of patient specimens that are analyzed in the clinical laboratory
Describe the phlebotomist's role in collecting and transporting these specimens to the laboratory

List the supplies that should be carried on a phlebotomist's tray when collecting microspecimens

Describe substances that can interfere in clinical analysis of blood constituents

Describe procedures used to avoid interference in clinical analysis of blood constituents

List the types of equipment needed to perform a venipuncture

Explain the special precautions employed when collecting blood from a newborn infant

Explain the types of equipment needed to collect blood from a newborn infant

List the equipment needed to perform a heel stick collection on an infant

Competency: Describe proper blood collection procedure, including handling complications that may arise

Competency Builders:

Discuss the legal and ethical importance of proper patient/sample identification

Identify potential sites for venipuncture

Identify potential sites for capillary puncture

List what effects tourniquet, hand squeezing, and heating pads have on skin puncture

List what effects tourniquet, hand squeezing, and heating pads have on venipuncture

Establish a recollection policy

Identify criteria for rejection of a patient sample for testing

Describe why some sites are more difficult to draw blood from than others

Identify which sites are more difficult to draw blood from

Name frequent causes of phlebotomy complications

Explain frequent causes of phlebotomy complications

Competency: Demonstrate knowledge of the disease process route of infection, infection control, and equipment safety

Competency Builders:

Identify the potential routes of infection
 Identify the methods for infection prevention
 Perform protocol for obtaining a sterile site

Competency: Explain the protocol for communication, transport, and processing specimens

Competency Builders:

Explain the correct procedure for complying with the request for collection of routine specimens
 Explain the correct procedure for complying with the request for collection of special specimens
 Explain the rationale for the various methods of transport
 Explain the procedure for processing specimens for routine testing from specimen labeling to result reporting manual or computer systems
 Explain the reasons for processing procedures
 Identify essential information that should be on the laboratory requisition or computer order entry
 Describe the significance of time constraints for specimen delivery to the analytical area
 Describe schedule constraints imposed by timed operational factors in the laboratory
 Identify the precautions applicable to verbal test ordering and reporting
 Evaluate results of quality control techniques in specimen collection
 Implement corrective quality control techniques where indicate

Competency: Apply quality control and safety procedures

Competency Builders:

Describe a system for monitoring quality assurance in the collection of blood specimens

Identify policies and procedures used in the clinical laboratory to assure quality in the obtaining of blood specimens

Design a strategy to implement a quality assurance program in the specimen collection section of the clinical laboratory

Describe safety measures that should be followed at all times by the phlebotomist when collecting blood specimens

Evaluate the electrical, radiation, and fire safety procedures used in the phlebotomy clinical laboratory setting

Competency: Describe basic concepts of communications, stress management, professional behavior, and the legal implications of the health-related work environment

Competency Builders:

Describe the protocol for preparing a patient for laboratory testing

Describe the preferred techniques for dealing with family and visitors during the blood specimen collection

Explain intra-laboratory communications techniques

Explain inter-laboratory communications techniques

Unit: First Responder

Competency: Describe roles and responsibilities of the First Responder

Competency Builders:

Describe the role of First Responder as a member of the EMS Team
Describe the responsibilities of the First Responder for the provision of prehospital emergency care within the local EMS system

Competency: Demonstrate knowledge of medicolegal aspects

Competency Builders:

Describe the medicolegal aspects of a First Responder's provision of emergency medical care in the jurisdiction having authority, including duty to act, standard of care, consent to care, forcible restraint, abandonment, documentation and applicable Good Samaritan Laws
Practice within medicolegal standards
Differentiate between First Responders and EMT-Paramedics

Competency: Assess vital signs of a sick or injured person

Competency Builders:

Define signs versus symptoms
Identify "normal" ranges for blood pressure, temperature, pulse, and respiration
Take TPR accurately
Take blood pressure accurately
Determine skin color, temperature, and moistness
Determine the level of consciousness of the sick or injured person
Record vital signs accurately

Competency: Use medical identification devices

Competency Builders:

Identify the most commonly used medical identification devices
Apply the information contained on or in the medical identification devices to patient assessment and patient care procedures
Accurately report and record information obtained from medical identification devices

Competency: Conduct a primary assessment of problems that threaten life if not corrected immediately

Competency Builders:

Identify importance of A-B-Cs of primary survey
Assess for inadequate airway, respirations, circulation, and profuse bleeding
Describe when immediate correction is necessary
Use spinal precautions as appropriate

Competency: Demonstrate BLS/CPR procedures

Competency Builders:

Establish open airway
Maintain open airway
Demonstrate rescue breathing and artificial circulation by means of CPR
Demonstrate use of barrier devices
Describe parameters for CPR in adult, pediatric, and infant victims

Competency: Control bleeding

Competency Builders:

Identify items that can be used to control external bleeding and minimize the contamination of open wounds

Identify five means of bleeding control

Apply pressure dressings that will control bleeding and minimize the contamination of open wounds

Control external bleeding by means of direct pressure and elevation

Control external bleeding by means of pressure applied to the pressure points of the main supplying arteries

Identify the likelihood of internal bleeding

Care for patient who exhibits the signs and symptoms of internal bleeding

Competency: Identify early signs and symptoms of shock

Competency Builders:

Describe the circumstances under which shock may occur or be present

Define anti-shock measures

Provide anti-shock measures as a part of routine patient care

Competency: Use mechanical aids for securing an airway and assisting ventilation/oxygenation

Competency Builders:

Use available mechanical devices to assure the maintenance of an open airway
Use available mechanical devices to assist ventilation
Use available oxygen delivery equipment
Use available suction equipment

Competency: Provide secondary assessment

Competency Builders:

Conduct a methodical head-to-toe physical examination to discover conditions not found during the primary assessment
Interview the sick or injured person to obtain facts relevant to the person's condition
Interview coworkers, witnesses, family members, or other individuals to obtain facts relevant to the sick or injured person's condition

Competency: Differentiate between a medical emergency and trauma situation

Competency Builders:

Identify signs/symptoms of a non-traumatic medical emergency
Identify signs/symptoms of traumatic injury
Describe appropriate care for the injury or illness identified

Competency: Care for patient in medical emergency

Competency Builders:

Describe patient experiencing cardiovascular emergency
 Care for patient experiencing cardiovascular emergency
 Describe patient experiencing respiratory emergency
 Care for patient experiencing respiratory emergency
 Describe patient experiencing behavioral/neurological disorder
 Care for patient experiencing behavioral/neurological disorder
 Describe patient experiencing diabetic emergency
 Care for patient experiencing diabetic emergency
 Describe patient experiencing metabolically induced shock
 Care for patient experiencing metabolically induced shock

Competency: Care for patient with traumatic injury

Competency Builders:

Explain need for continuous reassessment
 Explain mechanism of injury
 Describe patient experiencing c-spine/back injury
 Care for patient experiencing c-spine/back injury
 Describe patient experiencing head injury
 Care for patient experiencing head injury
 Describe patient experiencing musculo-skeletal injuries
 Care for patient experiencing musculo-skeletal injuries
 Describe patient experiencing trauma-related shock
 Care for patient experiencing trauma-related shock
 Describe patient experiencing amputation(s)
 Care for patient experiencing amputation(s)
 Describe patient experiencing multi-systems trauma
 Care for patient experiencing multi-systems trauma
 Describe patient experiencing blunt trauma
 Care for patient experiencing blunt trauma
 Describe patient experiencing ocular trauma
 Care for patient experiencing ocular trauma
 Describe patient experiencing trauma-induced neurological injury
 Care for patient experiencing trauma-induced neurological injury
 Document injury, assessment, and care

Competency: Identify musculo-skeletal injuries

Competency Builders:

Identify various types of musculo-skeletal injuries

Immobilize and care for suspected fractures, dislocation, sprains, and strains with available supplies and equipment, including commercially available and improvised devices

Competency: Identify potential for spinal injury

Competency Builders:

Describe the likelihood for spinal injury based patient assessment and a mechanism of injury

Explain manual c-spine stabilization

Explain how to immobilize a person who has a suspected spinal injury

Describe techniques used in assessing/treating spinal injury patients

Identify special equipment needed in treating and packaging a suspected spinal-injured patient

Competency: Describe emergency evacuation and transfer of a sick or injured person from an unsafe environment/location

Competency Builders:

Describe situations when a person should be evacuated or transferred
Assist, drag, or carry a sick or injured person from a dangerous location to a safe place
Maintain safety precautions during evacuation and transfer
Explain importance of thorough assessment procedures after patient has been moved to a safe area
Explain importance of accurate documentation of emergency evacuation of patient

Competency: Care for various patient needs

Competency Builders:

Describe a patient experiencing non-traumatic chest pain
Care for a patient experiencing non-traumatic chest pain
Describe a patient experiencing respiratory distress
Care for a patient experiencing respiratory distress
Describe a patient experiencing a seizure
Care for a patient experiencing a seizure
Describe a patient in an altered state of consciousness
Care for a patient in an altered state of consciousness

Competency: Care for patient who has ingested a poisonous substance

Competency Builders:

Identify poisoning as the possible cause of a patient's medical emergency
Call poison control
Care for a patient who has ingested a poisonous substance
Care for a patient who has inhaled a poisonous substance
Care for a patient who has absorbed a poisonous substance
Care for a patient who has been injected with a poisonous substance
Call poison control
Describe the importance of removing patient from the source/environment
Identify safety precautions for bystanders and rescuers
Call poison control

Competency: Care for patient who is burned

Competency Builders:

Describe the severity of burns including degree, body surface area, type, and location
Care for a patient who has thermal burns
Care for a patient who has chemical burns
Care for a patient who has electrical burns
Identify special circumstances involving burns (e.g., respiratory, eyes)
Identify possible secondary injuries complicating or associated with burns
Describe appropriate care for possible secondary injuries complicating or associated with burns

Competency: Care for patient suffering from an environmental emergency

Competency Builders:

Explain how exposure to heat or cold can result in a medical emergency

Identify signs/symptoms environmental emergencies due to excessive temperatures

Care for a patient who is experiencing heat cramps

Care for a patient who is experiencing heat exhaustion

Care for a patient who is experiencing heat stroke

Care for a patient who is experiencing frostbite

Care for a patient who is experiencing hypothermia

Competency: Care for patients with special needs

Competency Builders:

Describe patients with special needs

Care for ill or injured pediatric patients

Care for ill or injured elderly patients

Care for ill or injured physically disabled patients

Care for ill or injured developmentally disabled patients

Care for ill or injured mentally disabled patients

Care for ill or injured grossly obese patients

Competency: Provide triage to victims of multiple casualty incidents

Competency Builders:

- Identify difference between multiple and mass casualty situations
- Categorize victims of multiple casualty incidents according to severity level of injury or illness
- Use triage tags or other identification devices to indicate priorities for prehospital emergency care and transportation to medical facilities
- Work as a team member to perform triage at locations of multiple casualty incidents
- Work as a team member to perform patient assessments for multiple casualty incidents
- Work as a team member to carry out patient care procedures at locations of multiple casualty incidents
- Prioritize different levels of multiple casualty incidents
- Describe the importance of critical incident stress debriefing following multiple casualty incidents

Competency: Differentiate between life-threatening and non life-threatening entrapment situations

Competency Builders:

- Take steps to minimize the chance of injury or death to all involved when confronted with a potentially life-threatening entrapment situation
- Identify entrapment situations
- Undertake hazard control measures consistent with and available equipment
- Use available equipment to gain access to persons who are entrapped
- Use available equipment to disentangle persons from mechanisms of entrapment

Competency: Assist with emergency childbirth

Competency Builders:

- Evaluate whether delivery is imminent
- Assist with emergency delivery
- Care for mother and baby following normal childbirth
- Describe abnormal childbirth situations
- Care for mother and baby following abnormal childbirth

Unit: Emergency Medical Technology

Competency: Describe roles and responsibilities of the Emergency Medical Technician (EMT)

Competency Builders:

Identify the roles and responsibilities of the EMT
Describe the importance of emergency care
Identify legal aspects of emergency care
Identify contributing agencies in local EMS system
List six areas of personal attitude and conduct expected of an EMT
Describe state requirements for EMT certification and recertification
Explain the EMT's role in the organ donation program
Describe the signs and symptoms of critical incident stress
Explain the need for critical incident stress debriefing

Competency: Apply Center for Disease Control (CDC) guidelines

Competency Builders:

Identify ways communicable diseases can be transmitted
Demonstrate knowledge of CDC guidelines
Practice universal precautions
Describe procedures for reporting and follow-up after exposure to a communicable disease
Describe methods used to disinfect equipment and vehicles involved with an infectious patient

Competency: Apply aseptic and sterilizing principles

Competency Builders:

- Follow manufacturer's instructions for safe operation of all equipment and instruments
- Maintain infection control
- Store sterilized equipment and supplies
- Maintain quality-control log
- Define asepsis
- Identify methods for sterilizing and disinfecting reusable equipment
- Explain why dating of sterilized equipment is necessary
- Explain why proper documentation of disinfection and sterilization procedures is necessary
- Demonstrate use of sterilized equipment

Competency: Conduct patient assessment for illness/injuries

Competency Builders:

- Assess pulse, blood pressure, respiration, and temperature (to include rate, rhythm, quality)
- Assess level of consciousness
- Assess pupil size and reaction
- Assess skin color and temperature
- Assess motor neurological status
- Assess reaction to pain
- Perform an examination for life threatening problems (i.e., primary/secondary survey)
- Describe signs and symptoms of patient
- Describe the etiology of the patient's condition
- List five diagnostic signs in addition to the vital signs
- Demonstrate technique for completing a total patient assessment, recording diagnostic signs and their normal states
- Assess a trauma victim
- Communicate (in proper sequence) patient assessment information
- Record (in proper sequence) patient assessment information

Competency: Treat airway obstruction and respiratory arrest

Competency Builders:

Describe the basic mechanics of respiration
Maintain an open airway using nasal oropharyngeal equipment
Clear an obstructed airway
Provide appropriate oxygen therapy and ventilatory assistance
Perform mechanical suctioning of airway
Describe the significance of oxygen to body tissues, particularly the brain
List five components of the respiratory system and the functions of each
List three signs of adequate air exchange
Describe proper usage of oxygen therapy
Demonstrate safe handling of oxygen equipment

Competency: Treat cardiac arrest

Competency Builders:

Describe the basic mechanics of circulation
List signs of cardiac arrest
Perform CPR on adults, children, and infants
List three possible complications of CPR
List three instances when CPR may be terminated
Describe adjunctive equipment used in administration of CRP
Identify importance of continuing CPR during movement, extrication, and transport of cardiac arrest patient

Competency: Treat bleeding and shock

Competency Builders:

Identify the types and signs of external and internal bleeding
Control bleeding
Identify the types and signs of shock
Treat shock
Use pneumatic counter pressure devices appropriately

Competency: Treat soft tissue injuries

Competency Builders:

- Describe the anatomy and physiology of the skin
- Identify types, signs, and significance of various wounds
- Provide basic wound care
- Apply dressings and bandages to wounds
- Describe how to care for a patient with an amputation and the care of the amputated part
- List etiology of soft tissue injuries and potential complications of each
- Describe importance of using aseptic technique in treating soft tissue injuries

Competency: Treat musculo-skeletal injuries

Competency Builders:

- Describe the anatomy and physiology of the musculo-skeletal system
- Identify types, signs, and symptoms of fractures, sprains, and dislocations
- Select appropriate splint for treatment of presenting injury
- Demonstrate techniques for immobilizing all fractures and dislocations
- Identify mechanism of injury

Competency: Treat injuries of the head, neck, face, eye, and spine

Competency Builders:

- Describe the anatomy and physiology of the autonomic, central, and peripheral nervous system
- List signs and symptoms of brain and spinal injuries
- Demonstrate care of patients with injuries to skull, face, eye, and neck
- Demonstrate care of patients with injuries to the brain and spinal cord
- Demonstrate spinal immobilization techniques
- Describe assessment(s) of motor, sensory, and perfusion of the extremities before and after assessment, extrication, and transfer
- Describe position of the patient after sustaining injuries

Competency: Treat injuries to the chest, abdomen, and genitalia

Competency Builders:

Describe the anatomy and physiology of the abdomen, chest, and genitourinary system

Identify types, signs, and symptoms of injuries to the chest, abdomen, and genitalia

Demonstrate care of patients with injuries to the chest, abdomen, and genitalia

Demonstrate techniques of dressing and bandaging the chest, abdomen, and genitalia

Competency: Treat medical emergencies

Competency Builders:

List methods in which poisons can enter the body

Explain how to contact the appropriate poison control center

Describe the signs, symptoms, and treatments for poison overdose victims

Describe the signs, symptoms, and treatments for victims of venomous bites and stings

Describe the signs, symptoms, and treatments for victims of heart and respiratory diseases

Describe the signs, symptoms, and treatments for victims of cerebro-vascular incidents

Describe the signs, symptoms, and treatments for diabetic patients

Describe the signs, symptoms, and treatments for patients with communicable diseases

Describe the signs, symptoms, and treatments of allergic reactions

Describe the signs, symptoms, and treatments for patients having seizures

Describe the signs, symptoms, and treatments for patients suffering from acute abdominal problems

Describe the signs, symptoms, and treatments for substance abuse patients

Competency: Assist with emergency childbirth

Competency Builders:

Describe the anatomy and physiology relevant to childbirth
Assist mother before, during, and after delivery
Describe potential complications during three stages of childbirth
Manage complications of delivery during three stages of childbirth
Care for neonate
Resuscitate newborn if necessary
Provide appropriate care for premature infant
Provide care for multiple births
Document data relevant to delivery and care given

Competency: Demonstrate care for the pediatric patient

Competency Builders:

Assess the pediatric patient
Initiate appropriate age-level treatment
Describe signs, symptoms, and treatment for croup/epiglottitis
Identify normal vital signs in children
Explain management of fevers in children
Describe signs of child abuse
Report signs of child abuse

Competency: Treat burns

Competency Builders:

Describe dangers of burns to patient and rescuer
Estimate the degree and size of a burn
Provide emergency care to the burned victim
Manage complications of burns (i.e., respiratory compromise)
Report degree and size of burns, along with any complications and care given

Competency: Treat environmental emergencies

Competency Builders:

Describe signs, symptoms, and treatment for patients suffering from heat cramps, heat exhaustion, heat stroke, hypothermia, and frostbite
Describe signs, symptoms, and treatment for patients exposed to water-related emergencies

Competency: Manage victims of hazardous materials incidents

Competency Builders:

Describe methods used to identify hazardous material
Describe the threats of hazardous material to victims and the EMT
Describe general principles used to manage a hazardous material victim
Describe methods used to decontaminate or isolate equipment or vehicles used in a hazardous material incident
Identify agencies responsible for handling hazardous material incidents
Describe scene safety

Competency: Manage special care situations

Competency Builders:

Provide care for the needs of geriatric, mentally/physically challenged, non-English speaking, and psychologically disturbed patients
Manage behavioral emergencies including disruptive patients
Manage sexual assault victims
Provide care for the terminally ill
Manage SIDS incidents
Describe aspects of scene safety

Competency: Demonstrate extrication

Competency Builders:

Describe common extrication tools, equipment, and safe handling
Demonstrate methods used to gain access to and extricate patient from entrapment, including a motor vehicle

Competency: Maintain patient safety

Competency Builders:

Apply restraints (e.g., soft, vest)
 Monitor use of restraints
 Assist patient to walk with assistive ambulation devices
 Demonstrate safe usage of patient transport equipment
 Demonstrate safe handling of patient medical equipment (e.g., IVs, catheters, oxygen tubing)
 Position patient maintaining proper body alignment, supporting body parts
 Demonstrate patient transfer techniques
 identify safety needs of medicated patient
 Demonstrate use of cot and immobilization equipment (e.g., side rails, cot straps, shoulder harness, child restraint seats, backboard straps, KED, collars)
 Identify placement of patient call devices/emergency alert devices
 Orient patient to surroundings
 Identify techniques/procedures to patient

Competency: Describe mass casualty incidents

Competency Builders:

Define a mass casualty incident (MCI)
 Describe the principles involved in management of an MCI
 Explain the principle of triage
 Describe treatment rationale for MCI

Competency: Demonstrate knowledge of systems operation

Competency Builders:

Identify regulations and recommendations related to driving an emergency vehicle
 Describe emergency vehicle and equipment maintenance
 Describe the non-medical role of the EMT in situations such as traffic accidents and crime scenes

Unit: Emergency Medical Services

Competency: Demonstrate knowledge of the paramedic profession

Competency Builders:

Define the roles and responsibilities of the paramedic
 Differentiate among the various levels of training—from EMT to paramedic
 List current state requirements for paramedic certification and recertification
 Define continuing education, certification, licensure, and registration
 Explain the purposes of a national association, national registry, and
 professional journals
 Describe the benefits of paramedics teaching in their community

Competency: Describe emergency medical services (EMS) systems

Competency Builders:

Define medical control and physician responsibility
 Explain pre-hospital stabilization of patients
 Differentiate between management of trauma and medical patients
 Describe protocols and their development
 Explain the relationship between prehospital care and total patient care,
 including the emergency department and hospital specialty departments
 Describe the continuum of patient care and the responsibilities of the paramedic
 within the transfer of patient responsibility
 Describe the response of the EMS system, including system access, dispatcher
 responsibilities, patient evaluation, medical command, and patient
 responsibility
 Identify groups such as ASTM, NCSEMSTC, ACS, AMAJRC, and USDOT and
 their roles in the promulgation of national standards
 Outline the various paramedic-physician relationships
 Describe retrospective evaluation of patient care including report review,
 continuing education, skill practice, and skill deterioration
 Describe the EMT-Paramedic's initial responsibilities when arriving on the scene
 Identify circumstances that require the EMT- Paramedic's to report incidents to
 law enforcement or other appropriate authorities

Competency: Demonstrate EMS communication systems

Competency Builders:

- Describe the phases of communication necessary for an EMS event
- Define essential communication terms and equipment
- Describe the advantages and disadvantages of various EMS communication systems
- Describe factors affecting interference, range, and clarity of base, vehicle, and portable radio communications
- Describe the functions and responsibilities of the FCC
- Describe the functions and responsibilities of the EMS dispatcher
- Describe methods of verbal communication of patient information to hospital and to the physician
- Explain the importance of written medical protocols and the written EMS run report
- Demonstrate proper use of portable and mobile transmitter/receivers in a patient situation
- Explain uses of biotelemetry equipment
- Complete a written EMS report
- Describe medical legal issues concerning patient information

Competency: Demonstrate rescue techniques and extrication

Competency Builders:

- Identify possible hazards of a rescue scene
- Describe procedures for handling hazards at a rescue scene
- Describe the equipment and techniques to use to gain access to, package, extricate, and transport patients trapped within a vehicle or other confinement
- Describe the integration of patient care into the process of patient disentanglement and rescue
- Identify proper response in the presence of hazardous materials
- Name proper authorities to notify in the case of hazardous materials
- Manage scene and safe patient access
- Explain removal and transport of the patient from the scene
- Demonstrate procedures and operation of equipment used to gain access to, package, extricate, and transport patients trapped or confined in a vehicle or other type of entrapment
- Demonstrate techniques for lifting and handling patients with and without spine injuries and/or other special injury problems utilizing the special equipment found on a rescue vehicle
- Demonstrate techniques for lifting and moving patients utilizing typical patient handling/carrying devices

Competency: Describe major incident response

Competency Builders:

- Define mass casualty incident (MCI) and when it should be declared
- Describe the preplanning phase and response planning for MCI
- Describe MCI communications
- Describe the components of special resources
- Describe the function of scene command, scene triage, and the transferring command function
- Describe scene and staging management and a system for patient identification
- Define scene safety

Competency: Demonstrate knowledge of patient assessment and initial management

Competency Builders:

- Describe the primary and secondary survey
- Describe the anatomy, physiology and pathophysiology of the airway and lungs and its anatomical structures
- Describe the use of adjuncts in airway management
- Describe advanced methods of airway management
- Explain the significance of protection of the cervical spine in airway management
- Explain pulmonary ventilation and gas exchange across the alveolar-capillary membrane
- Describe the pathophysiology of open and closed pulmonary injuries
- Describe the techniques for evaluating effectiveness of ventilation
- Describe the anatomy and physiology of the heart and cardiovascular system
- Describe the pathophysiology of cardiac arrest
- Describe the mechanisms of evaluating the effectiveness of perfusion
- Describe hemorrhage control and its benefits and complications
- Assess neurological status
- Explain the pathophysiology of shock
- Define trauma score and its usefulness
- Obtain a relevant patient medical history
- Describe how a patient is packaged and stabilized for transportation to the hospital
- Describe procedures for hospital selection, transportation, and patient monitoring enroute to the hospital
- Perform a rapid assessment
- Set priorities of care based on threat to life
- Perform a secondary survey
- Document general patient findings and treatment

Competency: Manage airway and ventilation

Competency Builders:

- Describe techniques of advanced airway management, including intubation and surgical procedures
- Demonstrate methods of airway management on adult, child, and infant manikins both manually and with adjunctive equipment
- Demonstrate methods for assessing continued adequacy of airway management and ventilation when using advanced airway devices
- Demonstrate use of portable and fixed suction devices for oropharyngeal and tracheal suctioning

Competency: Manage shock

Competency Builders:

- Describe the causes, pathophysiology signs, symptoms, clinical manifestations, and management of shock
- Describe fluids, fluid transport, and fluid and electrolyte imbalances
- Describe resuscitation of the shock patient
- Describe hemodynamics of the cardiovascular system
- Describe differences in IV fluid composition and their implications in fluid administration
- Describe baroreceptors and their affect on blood pressure and perfusion
- Describe compensated and uncompensated shock
- Describe evaluation of patient's perfusion status
- Define acid-base balance
- Describe indications and contraindications of the pneumatic anti-shock garment
- Describe methods of fluid replacement and the advantages and disadvantages of each
- Demonstrate the steps in shock resuscitation
- Demonstrate use of pneumatic anti-shock garment
- Demonstrate proper technique for setting up intravenous fluids for administration
- Demonstrate proper technique of peripheral and external jugular venous cannulation on the adult, child, and infant patient
- Demonstrate proper techniques for troubleshooting an intravenous infusion
- Calculate fluid administration rates for intravenous fluids utilizing a variety of administration sets
- Demonstrate aseptic IV techniques

Competency: Demonstrate knowledge of pharmacology

Competency Builders:

Identify the various origins and forms of drugs

Differentiate many various names of a drug (e.g., generic, trade, official, chemical)

Identify agencies responsible for regulating drugs and the rationale for regulation

Demonstrate use of the Physician's Desk Reference (PDR)

Identify local and systemic effects of drugs

List effects of various factors on the action of drugs

Describe methods of drug absorption

Define relevant pharmacology terms

Describe the apothecary and metric systems

Convert between and within the apothecary and metric systems

Describe the routes of administration of various types of drugs

Calculate fractional drug dosages

Identify the advantages and disadvantages of subcutaneous, intramuscular, intravenous, and transtracheal injections

Demonstrate the proper procedure for intramuscular, subcutaneous, intravenous piggyback, intravenous bolus, and transtracheal medication administration

Demonstrate the proper procedure for withdrawing medication from a glass vial and a glass ampule

Competency: Manage trauma emergencies**Competency Builders:**

- Describe the general care and transportation of the trauma patient
- Describe the priorities of trauma care and triage with multiple patients
- Describe the anatomy, physiology, pathophysiology, assessment, and management of trauma to all regions of the human body
- Describe methods of hemorrhage control
- Demonstrate methods of hemorrhage control
- Describe neurological examination, assessment, pathophysiology, and management
- Describe rapid on-scene management of the trauma patient
- Describe the components of a complete prehospital history and the significance of each
- Describe various types of splints used for immobilization of fractures and dislocations and their advantages and disadvantages
- Describe the short and long backboard, the various state-of-the-art substitutes available, and their specific uses
- Describe various systems designed for scoring the severity of injuries to the trauma patient
- Describe the use of a trauma score in quantifying patient condition
- Demonstrate advanced methods of airway management and ventilation in the trauma patient
- Demonstrate decompression of a tension pneumothorax
- Demonstrate application of pneumatic anti-shock garment (MAST)
- Demonstrate physical examination of the trauma patient
- Demonstrate a neurological examination as performed on a trauma patient
- Demonstrate immobilization of the cervical spine
- Demonstrate splinting techniques
- Define indications of a tension pneumothorax

Competency: Manage burn injuries

Competency Builders:

- Describe the anatomy, physiology, pathophysiology, and assessment of the integumentary system
- Describe the movement of body fluids between plasma, interstitial compartments and intracellular compartments
- Describe the assessment and management of the burn system
- Describe the pathophysiology and treatment of burn shock
- Describe the major causes, classifications, and categories of burns
- Describe the method of calculating percentages of body surface area burned and various formulas for calculating fluid resuscitation
- Assess an inhalation injury

Competency: Manage respiratory emergencies

Competency Builders:

- Describe the anatomy, physiology, pathophysiology, and assessment of the respiratory system
- Define appropriate medical terms
- Identify the normal partial pressures of oxygen and carbon dioxide in the alveoli, arterial and venous blood, and factors that affect those levels
- Describe the normal and COPD respiratory drives
- Identify the pharmacology, actions, indications, precautions, dosages, contraindications, and side effects of typical respiratory drugs for the adult and pediatric patient
- Demonstrate methods of respiratory drug administration
- Describe the signs, symptoms, and pathophysiology of conditions affecting the respiratory system
- Demonstrate inspection, auscultation, and palpation of the thorax
- Identify normal and abnormal lung sounds
- Obtain a history from a patient with respiratory complaints
- Assess a patient with respiratory problems

Competency: Manage cardiovascular emergencies**Competency Builders:**

- Describe the anatomy, physiology, and pathophysiology relevant to cardiovascular disease and emergencies
- Identify the pharmacology, actions, indications, precautions, methods of administration, dosages, contraindications, and side effects of common emergency cardiovascular drugs
- Identify complications of intracardiac injections
- Describe innervation of the heart, sympathetic, and parasympathetic stimulation, blockade, and effects on the heart rate
- Describe myocardial electrical physiology
- Describe signs, symptoms, and common chief complaints of patients with cardiac conditions
- Describe the historical information, specific observations, and physical findings to be evaluated in the cardiac patient
- Identify actions, uses, and side effects of common prescription drugs relative to cardiac problems
- Describe the etiology of cardiac arrest in adults and pediatric patients
- Describe concepts of ECG monitoring, types and causes of artifacts, and rhythm analysis format
- Identify the wave forms, intervals, and normal values relative to an electrocardiogram (ECG)
- Describe the 12-lead ECG as compared to continuous monitoring
- Describe the etiology, clinical significance, and ECG characteristics of cardiac dysrhythmias
- Describe the indications for use of a precordial thump, vagotonic maneuvers, synchronized cardioversion, and defibrillation
- List energy recommendations for adult and pediatric patients
- Identify wave forms, artifacts, and dysrhythmias on Lead II or MCL1 rhythm strips and oscilloscope
- Obtain history from patient with cardiac condition
- Assess dysrhythmias or cardiac condition
- Demonstrate application of ECG electrodes
- Obtain a sample Lead II or MCL1 rhythm strip
- Use defibrillator paddles for Lead II monitoring
- Troubleshoot a poor ECG rhythm
- Perform a precordial thump, vagotonic maneuvers, synchronized cardioversion, defibrillation, and external cardiac pacing
- Use a mechanical CPR device
- Explain a team approach when managing cardiac arrest

Competency: Manage endocrine emergencies

Competency Builders:

- Describe the anatomy, physiology, and pathophysiology of the endocrine system
- Describe the assessment and management of endocrine emergencies
- Identify the historical information, observations, and physical findings significant in the patient with endocrine disorders
- Identify common prescription drugs that endocrine patients might take and the implications of each
- Identify the pharmacology, actions, indications, precautions, methods of administration, dosages, contraindications, and side effects of relevant drugs
- Obtain a history from a patient with endocrine problems
- Assess patients with endocrine problems
- Administer relevant drugs

Competency: Manage neurological emergencies

Competency Builders:

- Describe the anatomy, physiology, and pathophysiology of the neurological system
- Describe the assessment and management of neurological disorders
- Identify the actions, uses, and side effects of common prescription drugs relative to neurological problems
- Identify common prescription drugs that a patient with neurological problems might take and the implications of each
- Identify the pharmacology, actions, indications, precautions, methods of administration, dosages, contraindications, and side effects of relevant drugs
- Explain the Glasgow Coma Scale
- Use the Glasgow Coma Scale
- Differentiate various types of seizures and their phases
- Obtain history from a patient with neurological disorders
- Assess patients with neurological disorders

Competency: Manage digestive, genitourinary, and reproductive emergencies

Competency Builders:

- Describe the anatomy, physiology, and pathophysiology of the digestive, genitourinary, and reproductive systems
- Identify the historical information, observations, and physical findings significant in the patient with digestive, genitourinary, and reproductive disorders
- Describe the assessment and management of digestive, genitourinary, and reproductive system disorders
- Identify common prescription drugs that a patient with digestive, genitourinary, and reproductive problems might take and the implications of each
- Describe the basic principles, types, and complications of dialysis
- Explain the assessment and management of the dialysis patient, including vascular access
- Obtain history from a patient with digestive, genitourinary, and reproductive disorders
- Identify the pharmacology, actions, indications, precautions, methods, of administrations, dosages, contraindications, and side effects of relevant drugs

Competency: Manage anaphylaxis emergencies

Competency Builders:

- Describe the anatomy, physiology, pathophysiology, causes, signs and symptoms, assessment, and management of anaphylaxis
- Identify the historical information, observations, and physical findings significant in the patient with potential anaphylaxis
- Identify the pharmacology, actions, indications, precautions, methods of administration, dosages, contraindications, and side effects for the adult and pediatric patient for epinephrine, diphenhydramine, aminophylline, and dexamethasone
- Obtain history from a patient with potential anaphylaxis
- Administer epinephrine, diphenhydramine, aminophylline, and dexamethasone to the adult and pediatric patient

Competency: Manage toxicology, alcoholism, and drug abuse emergencies

Competency Builders:

Describe toxicologic emergencies
 Identify the routes of entry of toxic substances into the body
 Describe the role of Poison Control Centers in the EMS system and in the management of patients with toxicological emergencies
 Define drug abuse terms
 Identify commonly abused drugs and their effects
 Describe the anatomy, physiology, pathophysiology, assessment, and management of patients with toxicological emergencies, animal or insect bites, stings, drug overdose, and alcoholism
 Describe the incidence of alcoholism, drug abuse, and substance abuse in the United States
 Obtain history from a patient with toxicological emergencies, animal or insect bites, stings, drug overdose, and alcoholism
 Apply a constricting band
 Administer relevant drugs

Competency: Manage infectious diseases

Competency Builders:

Define terms and conditions relative to infectious diseases
 Describe the anatomy, physiology, pathophysiology, causes, mode of transmission, incubation period, assessment, and management of typical infectious and communicable diseases and parasites
 Identify the historical information, observations, and physical findings significant in the patient with infectious/communicable disease or parasites
 Practice universal precautions according to CDC standards
 Describe procedures for reporting and follow-up after exposure to a communicable disease according to CDC standards
 Obtain history from a patient with infectious/communicable disease or parasites

Competency: Manage environmental injuries**Competency Builders:**

- Describe homeostasis, methods of body temperature regulation and methods of thermoregulation and heat dissipation and retention in pathologic circumstances
- Identify the historical information, observations, and physical findings significant in the patient with hypothermic or hyperthermic disorders
- Describe the anatomy, physiology, pathophysiology, causes, signs and symptoms, assessment, and management of hypothermic or hyperthermic disorders
- Identify the historical information, observations, and physical findings significant in the patient with near-drowning emergency
- State the factors affecting survivability and probability of successful resuscitation in near-drowning patients
- Obtain history from patient with a near-drowning emergencies
- Manage a patient with a near-drowning emergencies
- Identify common types and sources of ionizing radiation
- Identify sources of normal background radiation
- Describe the anatomy, physiology, pathophysiology, signs and symptoms, causes, assessment, and management of acute and/or chronic exposure to ionizing radiation
- Obtain history from patient with hypothermic or hyperthermic disorders
- Manage patient with hypothermic or hyperthermic disorders
- Identify the historical information, observations, and physical findings significant in the patient with acute and/or chronic exposure to ionizing radiation
- Describe safety procedures for allied health personnel and patients related to exposure to ionizing radiation
- Explain procedures for notifying appropriate health officials of radiological incidents
- Obtain history from a patient with acute and/or chronic exposure to ionizing radiation
- Manage patient with acute and/or chronic exposure to ionizing radiation

Competency: Manage geriatric emergencies

Competency Builders:

- Identify the physical, social, and psychological differences between youth and elderly
- Identify the historical information, observations, and physical findings significant in the geriatric patient with acute and/or chronic medical problems
- Identify illness/complaints that require special consideration in the elderly
- Describe the anatomy, physiology, pathophysiology, assessment, and management of common geriatric illnesses
- Identify infectious diseases indigenous to specific geographical areas
- Obtain a history from a geriatric patient
- Treat geriatric patients
- Describe geriatric abuse
- Describe the components and objectives of a gerontology program
- Demonstrate communication techniques with a special needs patient (e.g., blind, deaf, dementia)

Competency: Manage pediatric emergencies

Competency Builders:

- Identify the general goals of managing the pediatric patient
- Identify the historical information and its sources in evaluating the pediatric patient
- Describe, by age groups, the relevant aspects of normal growth and development, personality development, relationship to parents, history factors, common illnesses, and accidents
- Describe Sudden Infant Death Syndrome (SIDS), the current theories for causes, assessment, management, and the immediate needs of the family
- Describe the characteristics of a child abuser
- Describe the characteristics of an abused child
- Describe the assessment and management of potentially abused children, including management of the family of the child
- Identify types of child abuse
- Describe the anatomy, physiology, pathophysiology, assessment, and management of common pediatric disorders
- Identify the pediatric dosage for relevant drugs
- Demonstrate techniques for airway maintenance in the pediatric patient
- Describe techniques and sites for intravenous infusion in the pediatric patient
- Obtain a history from a pediatric patient
- Assess a pediatric patient

Competency: Manage the gynecologic patient

Competency Builders:

- Describe the anatomy and physiology of the female reproductive system
- Identify the historical information, observations, and physical findings to be evaluated for the gynecologic patient
- Describe the pathophysiology and management of gynecological disorders
- Describe potential causes, assessment, and management of trauma to the external genitalia
- Describe the assessment and management of a sexual assault victim
- Obtain a history from a patient with a gynecologic problem
- Assess a patient with a gynecologic problem
- Report sexual assault

Competency: Manage the obstetric patient

Competency Builders:

- Define obstetrical terminology
- Describe the process of fetal development and circulation
- Identify the historical information, observations, and physical findings to be evaluated for the obstetric patient
- Describe early signs and symptoms of pregnancy.
- Describe potential causes, assessment, and management of trauma to the pregnant mother and the fetus
- Describe the effects of pregnancy on pre-existing medical conditions
- Describe the anatomy, physiology, pathophysiology, causes, assessment, and management of obstetrics
- Describe Braxton-Hicks contractions
- Describe the progression of labor
- Describe factors that influence transport decisions for the patient in labor
- Describe a normal cephalic delivery
- Describe the pathophysiology, assessment, and management of delivery complications
- Identify the pharmacology, actions, indications, methods of administration, dosages, contraindications, and side effects of oxytocin
- Obtain a history for an obstetric patient
- Define stages of labor and associated complications
- Assess the obstetric patient
- Treat obstetrical patients, including assisting with childbirth
- Administer oxytocin

Competency: Manage the neonate

Competency Builders:

Describe the anatomy, physiology, pathophysiology, assessment, and routine management of the neonate

Describe the mechanisms, effects, and treatment of hypothermia in the neonate

Define the parameters, numerical values utilized, and the procedure for Apgar scoring

Demonstrate stimulation of CPR for the neonate

Identify observations and physical findings to be evaluated in the neonate

Identify problems and equipment requirements for transportation of the neonate

Obtain a history for a neonate

Assess a neonate

Administer oxygen to a neonate

Suction a neonate using DeLee Suction and bulb syringe

Calculate Apgar score

Obtain an antepartum and postpartum history of the mother

Competency: Manage behavioral emergencies**Competency Builders:**

Define behavioral emergency

Identify factors that may alter the emotional status of the ill or injured

Identify common prescription drugs that a patient with behavioral disorders might take and the implications of each

State reasons for and methods of reassuring patient who is experiencing an emotional crisis

Describe verbal communication techniques useful in managing the emotionally disturbed patient

Describe means to insure the safety of the Paramedic

Describe circumstances when bystanders and relatives should be removed from the scene

Identify factors which increase the risk of suicide and behaviors that are indicators of an impending suicide attempt

Describe techniques that facilitate the systematic gathering and reporting of information about the disturbed patient

Describe techniques that are useful in managing the effects of crisis situations on the Paramedic

Describe techniques that are useful in redirecting anxiety in relatives and bystanders

Identify appropriate action of the Paramedic when confronted with an uncontrollable, armed patient

Describe situations in which the EMT-Paramedic may forcibly restrain or transport a patient

Demonstrate techniques for restraining the violent patient

Demonstrate techniques useful in protecting the EMT-Paramedic when attached by a violent patient

Obtain a history of patients with behavioral emergencies

Assess patients with behavioral emergencies

Competency: Demonstrate paramedic skills

Competency Builders:

- Demonstrate patient assessment/management (e.g., medical and trauma)
- Demonstrate ventilatory management skills/knowledge (e.g., simple adjuncts, supplemental oxygen delivery, endotracheal intubation, chest decompression, transtracheal jet ventilation/cricothyrotomy)
- Demonstrate management of cardiac arrest patient (e.g., therapeutic modalities, megacode, monitor/defibrillator knowledge, pacing)
- Demonstrate hemorrhage control
- Demonstrate splinting procedures
- Demonstrate IV therapy and IO therapy (e.g., set-up, fluid therapy, medication administration)
- Demonstrate spinal immobilization (e.g., seated and lying patients)
- Demonstrate gynecologic skills and knowledge
- Demonstrate other related skills (e.g., radio communications, report writing, documentation)

Competency: Maintain current certifications and continuing education

Competency Builders:

- Meet AHA/ARC standards for CPR proficiency
- Meet AHA standards for advanced cardiac life-support proficiency
- Meet national registry and state requirements for continuing education (e.g., paramedic refresher, additional continuing education)



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